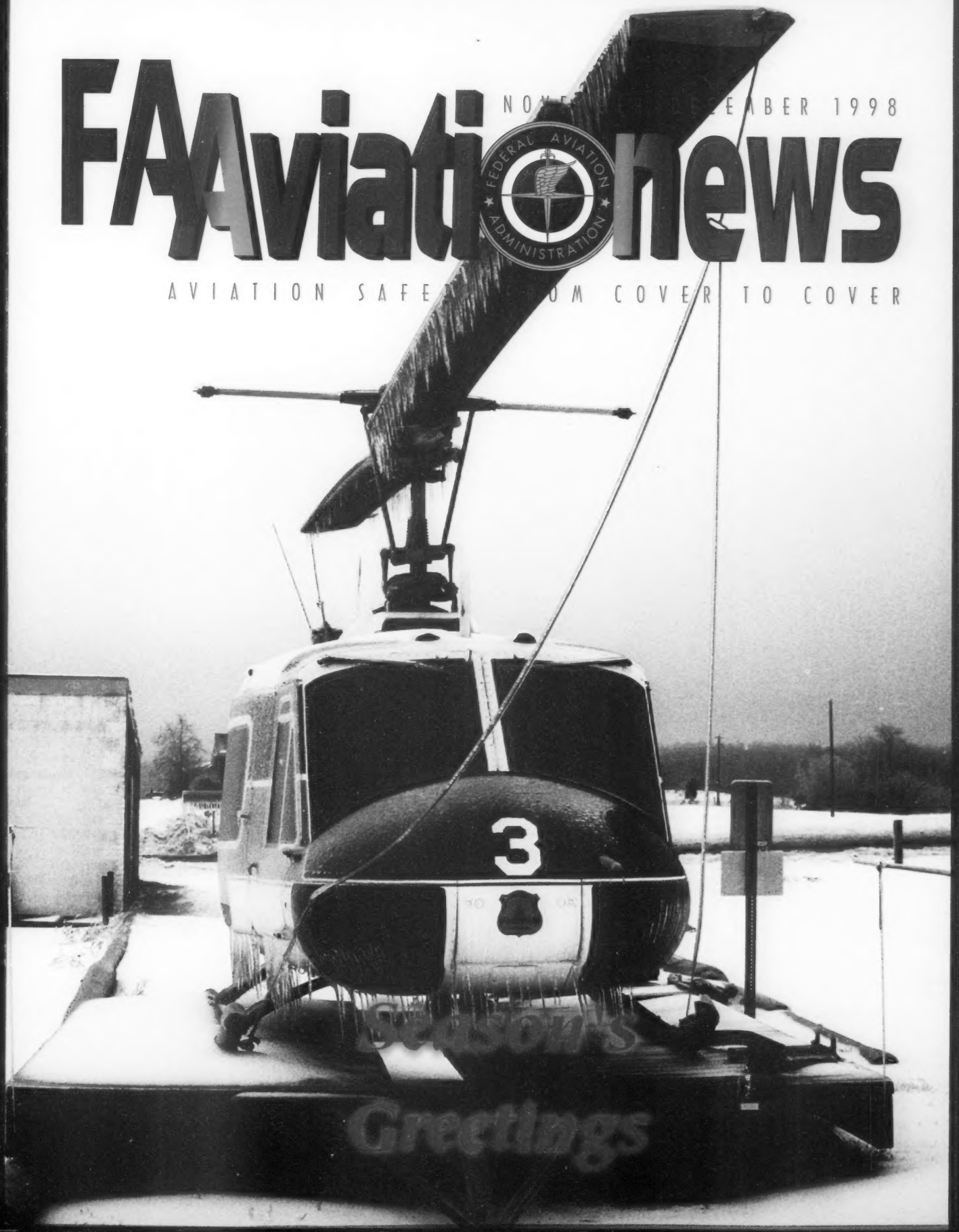
FAA Aviation News

NOVEMBER/DECEMBER 1998

AVIATION SAFETY FROM COVER TO COVER



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The FAA's Flight Standards Service, General Aviation and Commercial Division, Publications Staff, AFS-805, Washington, DC 20591; telephone (202) 267-8017, FAX (202) 267-9463; publishes FAA AVIATION NEWS in the interest of flight safety. The magazine promotes aviation safety by calling the attention of airmen to current technical, regulatory, and procedural matters affecting the safe operation of aircraft. Although based on current FAA policy and rule interpretations, all printed material herein is advisory or informational in nature and should not be construed to have regulatory effect. The FAA does not officially endorse any goods, services, materials, or products of manufacturers that may be mentioned. **Certain details of accidents described herein may have been altered to protect the privacy of those involved.**

The Office of Management and Budget has approved the use of funds for the printing of FAA AVIATION NEWS.

SUBSCRIPTION SERVICES
The Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9371, sells FAA AVIATION NEWS on subscription. Use the self-mailer form in the center of this magazine to subscribe.

CHANGE OF ADDRESS OR SUBSCRIPTION PROBLEMS: Send your label with correspondence to Sup Doc, Attn: Chief, Mail List Branch, Mail Stop: SSOM, Washington, DC 20402-9373. Or call GPO Customer Service at (202) 512-1800/6; FAX: (202) 512-2168.

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**Aviation Safety Program:
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BACK COVER Editor's Runway

FRONT COVER: A UH-1H, "Huey," from the now defunct Metropolitan Police of the District of Columbia Helicopter Unit on a winter day at Hyde Field, Maryland.
BACK COVER: Clearing the control surfaces of ice and snow before flight is wintertime drudgery but an absolute necessity.
(H. Dean Chamberlain photos)

THE CLOCK IS TICKING

by Jane F. Garvey

FAA Administrator Jane F. Garvey

Because this issue went to press in October, the "days to go" count in this article is predicated on December 31, 1998.-Editor

In 365 days it will be January 1, 2000.

Just a few years ago little did the global aviation community realize how much difference a day could make, but today we know more than ever just how much we need to do to get ready for that New Year's Day.

The clock is ticking.

Will the FAA make it? Can we assure that air traffic safety is not compromised in the slightest starting at 12:01 a.m. Greenwich Mean Time on January 1, 2000?

The answer is "yes." Aviation safety will not be compromised on that day or any other day.

I want to bring you up to date on what the FAA is doing to get ready for January 1, 2000. I also want to share some of the lessons we've learned. Throughout this article I will stress the importance and the urgency of dealing with the Y2K-Year 2000-issue in your companies and communities.

None of us can solve the Y2K problem by ourselves, but by working together we can solve it at the same time we achieve the less tangible, yet still important, goal of mutual assurance that aviation will operate safely and that capacity will be maintained.

What the FAA is Doing

I must be candid—the FAA was initially behind in addressing the Y2K issue, but we have energized and accelerated our program. We know that clock is ticking. Ensuring that all FAA computer systems properly recognize the year 2000 is one of my highest priorities.

In February of this year, I changed FAA's approach to the Y2K problem. FAA's Air Traffic Services had developed an approach that involved centralized management, with a clear plan and process. I made that the model for the rest of the agency and created a Year 2000 Program Office reporting directly to me. The Air Traffic Services did not miss a single Y2K deadline.

The Y2K Program Office is using the five-phase approach recommended by the U.S. General Accounting Office and the Office of Management and Budget to ensure that all systems are Y2K compliant. The five phases are awareness, assessment, renovation, validation, and implementation.

As of January 31, 1998, we completed the second, or assessment phase. This means that each line of code in all 655 systems was examined to determine which ones needed to be fixed in order to be Y2K compliant. Of those, there are 433 mission-critical systems. These include the operational systems that provide airlines with air traffic control and navigation services.

On September 30 of this year, the FAA completed the third, or renovation, phase. All lines of code that needed to be fixed have been fixed. As a result of the renovation phase, all mission-critical systems that required renovation were repaired.

Testing and re-testing of renovated systems is the fourth or validation phase, and that will be completed by March 31, 1999. Our validation process tests components and individual systems. In addition to this process of testing the individual systems in the field, we are planning end-to-end tests. An end-to-end test is when you test the interrelationships of systems, not just the individual system itself. This is how the systems operate, and this is how we must test them.

These end-to-end tests will be conducted between our Technical Center in Atlantic City, which can simulate any of our air route traffic control centers, and a test approach control facility in Denver. These end-to-end tests will reinforce our assurance that individual system fixes will not compromise safety. We have also begun staff level meetings with NavCanada to discuss testing between our systems. NavCanada is also discussing testing with the United Kingdom's National Air Traffic Service.

The last of the five phases is implementation. Our implementation deadline is June 30, 1999. This is the date by which all FAA systems will be certified and operational as Y2K compliant. The FAA is looking to move the March 31 validation and June 30 implementation deadlines up.

As for the Host computer, which

drives displays at the nation's 20 en route centers, we are taking a two-track approach. For one, renovation of the Host's lines of code were completed by the end of July 1998, with validation and implementation to follow the timelines for the other systems. At the same time, we are working to replace the Host computer by January 1, 2000.

During this five-phase process, we have a team reviewing contingency plans. We already have contingency plans in place for 20th century issues, such as weather, equipment failures, power or communications outages, and the like, but contingency planning for the 21st century and the Y2K issue presents its own challenges. Spares don't cut it—they could have their own Y2K bugs.

The cost estimate for the entire FAA Y2K effort is $185.6 million. Not factored into this cost estimate are the travel expenses for the trip I plan to take with Ray Long, the director of the FAA's Y2K Program Office, on the evening of December 31, 1999. To celebrate New Year's Eve, we will board a plane shortly before midnight Greenwich Mean Time and fly west through all four continental time zones to demonstrate our confidence to the flying public that the nation's airspace system is safe.

Ray says he expects this to be an utterly normal but deeply satisfying trip.

This "midnight ride" leads me to my next point, and that is lessons learned. There are two key lessons.

One, Y2K needs leadership from the top. That is where the direction and deadlines must come from. After all, this is a project with a due date that will not slip.

Two, in an industry as visible as ours, and one that attracts so much public attention, you need to assure the public that you have the Y2K issue under control. Public perception and confidence is vital to aviation.

I want the aviation industry and the public to have the assurance that it will be business as usual on January 1, 2000.

The clock is ticking.

Three hundred and sixty-five days to go—minus about 15 minutes for reading this article.

Y2K is an urgent issue. The FAA has a sense of urgency. We have a clear plan and program, and we have the confidence that we will be ready for January 1, 2000. ✈

Ms. Garvey is, of course, Administrator of the FAA, and this article was adapted from remarks she made last June at the International Air Transport Association annual meeting in Montreal, Canada.

For further information on FAA's Y2K efforts and their effect on safety go to http://www.faay2k.com where you can find FAQ's or download a copy of the FAA Y2K Project Plan.

FAA YEAR 2000 GOALS

GOAL 1	Ensure that the National Airspace System (NAS) and other core FAA systems will operate reliably through the year 2000 and beyond.
GOAL 2	Ensure that all lines of business across the FAA follow a consistent approach and adhere to the project schedule.
GOAL 3	Monitor the status of all FAA Year 2000 efforts through the entire repair life cycle.
GOAL 4	Minimize risk associated with the FAA Year 2000 repair efforts.

REQUIREMENTS FOR AIR CARRIERS, AIR OPERATORS, AND AIR AGENCIES

By January 4, 1999 all U.S. certificate holders-air carriers, air operators, and air agencies-must certify to their principal FAA inspector that their computer-based systems involving the tracking of crewmember training and proficiency records, aircraft maintenance records, and other operational and maintenance activities that are computer-based are Y2K compliant. This certification must also include any contractors used by the certificate holders.

For further information on this requirement for certificate holders (DOES NOT include individual pilots and mechanics), contact your local FAA flight standards district office (FSDO) and request a copy of Flight Standards Information Bulletin for General Aviation (FSGA) 98-01, "Plan for Safety Assurance of Certificate Holders Regarding Year 2000 Automation Issues."

SURFING THE AVIATION WEB

Part 1: www.faa.gov

by Phyllis Anne Duncan

One of the questions posed to FAA Administrator Jane Garvey at the annual "Meet the Boss" session at EAA's AirVenture 1998 at Oshkosh, WI, this past August was why wasn't FAA information—regulations, orders, etc.—on the Internet where the public and the aviation industry could access them?

The question drew a lot of applause from the standing room only audience, and the answer was actually an easy one: There is a wealth of information on official FAA Web sites. The trick is knowing where to find it and how to access it.

As anyone who has been riding the waves of cyberspace knows, sites go up, come down, move location, and so on with dizzying speed. Even for sites that are regularly updated, as government sites are, keeping up with the changes can be vexing. One key to successful cyber-surfing is knowing where to start, and that may not necessarily be with a search engine. If you can get to a single government, or even FAA site, the hyperlinks can literally take you anywhere.

What we'd like to do with this series of articles is walk the reader through three prominent FAA and government sites that will get the aviator to most everything he or she would need to be "current" as far as FAA regulations and directives are concerned. After the final article in the series, we'll list some non-official URL's (universal resource locators, or web site "addresses") that contain additional, even duplicate information. We can't guarantee that the content on non-FAA sites is as up to date as that on official sites, but some of the non-official sites are very compelling for anyone interested in aviation. Airmen will find the answers to most of the questions at the Regulations and Certification "gateway" (www.faa.gov/avr/avrhome.htm).

The amount of information available on the FAA web site alone is staggering, and we will only attempt to hit the highlights here, give an overview of the information contained on a particular site. We'll provide the URL's, and I strongly suggest that if you find a page that contains the information you're looking for or information that you will want constant access to bookmark it or place it in your "Favorites" folder. I can't begin to provide an all-encompassing "how to use the Internet" guide, but I will attempt to point you in the right direction for the vast quantity of FAA material on the Internet.

Ideally, if you have Internet access, as you read this article, you might want to get on line and follow us through the steps. Again, bear in mind that I'm writing this in the August-September timeframe because of our production schedule, and you'll be reading it in November or early December. Things probably have changed, but this will be a good start.

The FAA home page can be accessed with any Internet browser, though there may be some differences in appearance among the various commercial browsers available. The differences are cosmetic; the information is the same. Also, some of the FAA pages involve a lot of links and graphics which eat up your memory, so if you have an older computer with a low amount of RAM or a slow operating speed or a slower modem, the pages could take many seconds or even a couple of minutes to download. Just be patient. For example, my desktop here in the Aviation News Staff office is 233 MHz, 80 MB of RAM, 56.6K modem, so web pages download pretty fast, except I'm on a network, and that slows things down. At home I have a 266 MHZ, 40 MB RAM, 56.6K platform, and things move just under warp speed, even though my Internet access company has no 56.6K lines. But even on an older computer I have—75 MHz and 20 MB of RAM, 28.8K modem—exploring the FAA home page and hyperlinks went smoothly if a bit slowly.

If you explore the sites on line with me, you'll see that at the bottom of each site page there are plenty of other links to other parts of the FAA server, so it's easy to get "lost" and find it difficult to return to the main home page. Being familiar with the various shortcuts your browser allows will be a big help. That's why bookmarking or putting pages of interest into your "Favorites" folder, depending on your browser, is a big help. That way, next time you can go only to the pages you want, directly and without a lot of navigating. You can also click on the "GO" feature in Netscape or the address tool bar in Internet Explorer to see a list of URL's you have visited.

Let's start with the obvious: http://www.faa.gov . In fact when you open it on your browser, bookmark it or put it in your Favorites folder right away. That way, if you do get confused or lost among the countless links you can surf to, you can get directly back to www.faa.gov by clicking on it from "Bookmarks" or "Favorites."

When you open www.faa.gov, you see a typical home page. On the left hand side of the page are the following:

- Hot topics
- Site index
- Search
- What's new
- DOT Home
- Feedback
- FAA Highlights
  - Δ Safer Skies
  - Δ Aviation Safety Info

Netscape: FAA - Federal Aviation Administration
Back
Forward
Reload
Home
Search
Netscape
Images
Print
Security
Stop
Netsite: http://www.faa.gov/
What's Related
welcome to the
FEDERAL AVIATION ADMINISTRATION
FAA
hot topics
site index
search
what's new
DOT home
feedback
Quick Jump
GO
faa highlights
Safer Skies
Aviation Safety Info
FOIA
FAA Year 2000 Site
Navigating This Site
Headquarters Offices
FAA Supported Sites
Other Aviation Sites
Site Information
featured site
TURBULENCE happens
TURBULENCE HAPPENS. And when it does, adults and children who are not buckled up can be seriously injured.
OFFICE OF PUBLIC AFFAIRS (APA) communicates to the media and FAA employees information on agency policies, programs, and plans.
REGULATION AND CERTIFICATION (AVR) promotes the highest safety standards in the world and provides quality service to the public.
AIRPORTS (ARP) provides leadership in planning and developing a safe and efficient national airports system.
AIR TRAFFIC SERVICES (ATS) ensures safety, efficient operation, and maintenance, of the air transportation system.
FAA REGIONAL OFFICES AND AERONAUTICAL CENTER SITEMAP (ARC)
COMMERCIAL SPACE (AST) regulates and promotes the commercial space and transportation industries.
CIVIL AVIATION SECURITY (ACS) The FAA's aviation security mission is to protect the users of commercial air transportation against terrorist and other criminal acts.
RESEARCH AND ACQUISITIONS (ARA) provides guidance relating to acquisition policy, research, system prototyping, and information resource management.
OFFICE OF DISPUTE RESOLUTION FOR ACQUISITION (ODRA) provides fair and efficient resolution of procurement protests and contract disputes.
THE OFFICE OF SYSTEM SAFETY (ASY) provides access to aviation safety-related databases, safety reports and publications, and information on the Global Analysis Information Network (GAIN) project.
** WARNING/DISCLAIMER ON USE OF GOVERNMENT SYSTEMS AND INFORMATION **
Site content last updated Saturday, September 12, 1998.

Δ FOIA
Δ FAA Year 2000 Site
Δ Navigating this Site
Δ Headquarters Offices
Δ FAA Supported Sites
Δ Other Aviation Sites
Δ Site Information
• Featured Site

As you can see, we're only done with a third of the home page, and there are 16 major links.

When you click on "Hot Topics,"

you will see you can download a number of FAA reports and documents, such as the FAA's FY 1999 Annual Performance Plan, National Performance Review Initiatives, Evaluation of FAA Acquisition Reform, National Civil Aviation Review Commission, personnel reform, Free Flight, and so on. Each of the "Hot Topics" is a hyperlink itself, which takes you deeper into the information or to documents that can be printed or downloaded for later retrieval.

Click the Back icon on your browser to return to www.faa.gov, then click on "Site Index," or simply click on "Site Index" at the top of the "Hot Topics" page. "Site Index" is a single-glance listing of the FAA's six major lines of business and their associated hyper-links: AAD, Administration; ARP, Airports; AST, Commercial Space; AVR, Regulation and Certification; ARA, Research and Acquisitions; ATS, Air Traffic Services; and NASDAC, System Safety. When you click on the hyper-links beneath the lines of business you go directly to other FAA sites related to that line of business which contain nice-to-know information or needed documents. Again, these documents can be down-loaded, printed, or read on-line.

Use the Back icon again to return to www.faa.gov or click on "Search" at the top of the "Site Index" page. The "Search" area is basically self-explanatory. It is a search engine where you can enter words or phrases on the topic you're interested in, and you will be provided site locations where you can find more information. So, let's try a little test.

The "Search" page tells you to enter words or phrases, separated by commas. The first box identifies where you can "search in." If you click on the arrow on the right side of the "search in" box you have three choices: All documents (meaning everything on the FAA site), HTML documents (pages in hypertext markup language or other web pages), or PDF documents (portable document format, which can be viewed through a "reader" such as Adobe Acrobat, printed, or downloaded).

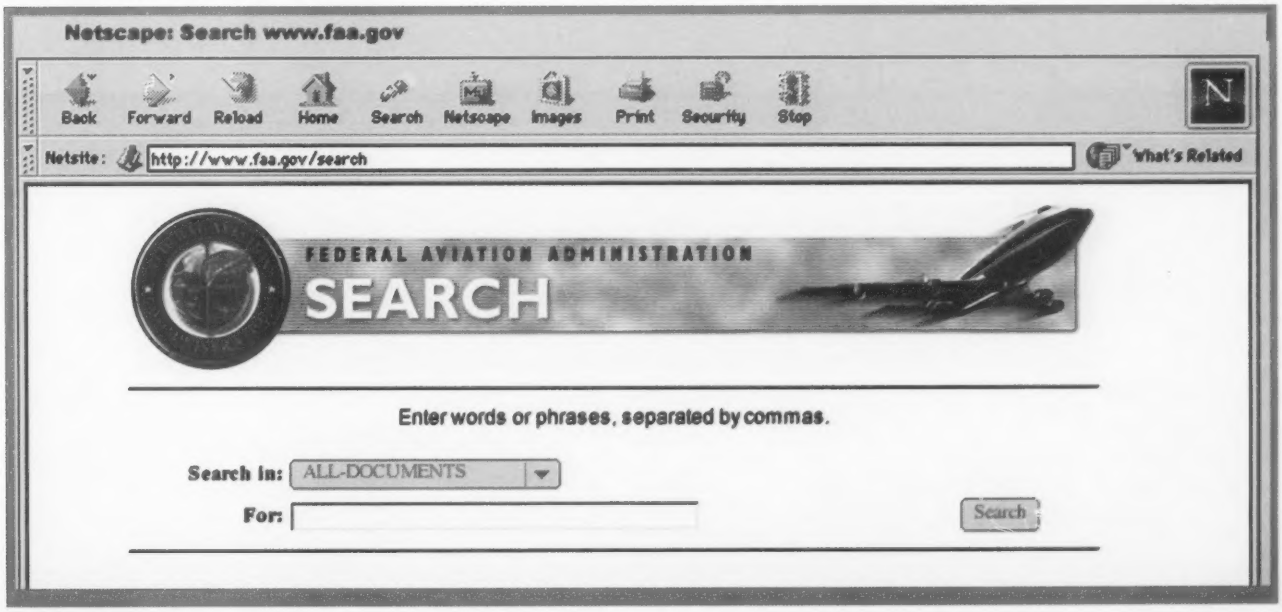
If you want a global search of everything available on the FAA site you would select "All Documents," which would locate all files or sites containing your key words or phrase. If you want only other web or .html pages, you would select "HTML Documents," and the search would be limited to .html pages only. Or if you only wanted .pdf files, you would select "PDF Documents" and limit your search to only those files.

Let's select "All Documents."

The box below "Search In" says, "For." This is where you would enter your key words (separated by commas) or a phrase. Let's type in "safety publications" and see what happens when we click on the "button" on the right labeled "Search."

My search tells me that out of 6,960 documents searched, 10 documents matched my key words. (If you're trying this at home a couple of months after I've written this, your results could be different. Actually, as items are constantly added to the FAA server, I could get a different result later on this afternoon!) The results took only a second or so, which is the advantage of using a search engine on a fast computer with a 56.6K modem. Now, the results can be a bit misleading since the 10 documents listed may not be safety publications but merely contain the two words "safety publications." If you're searching for a specific publication, you would have to refine your search.

For the next link you do have to go back to www.faa.gov using the Back icon. "What's New" is a site that is constantly updated, and it highlights recent items of interest for the FAA or the aviation industry. For example, on the date this article was written, "What's New" was the "FAA's Integrated Communications System for



the 21st Century (FICS-21). Since "What's New" is updated every 45 days, this will be different when you have a look.

You can get to "DOT Home" by backing up to www.faa.gov and clicking on that site or click on it at the top of the "What's New" page. "DOT Home" takes you directly to the U.S. Department of Transportation's Home Page and links to all the other administrations under DOT. To get back to the www.faa.gov, you can again click on the Back icon or select the FAA icon on the DOT home page.

"Feedback" shows up on www.faa.gov and most of the other FAA sites. "Feedback" allows you to e-mail directly to the FAA, who will get your question or concern to the proper office for reply, either by e-mail or correspondence if you include your "snail-mail" address.

Now, back to www.faa.gov and "FAA Highlights." "Safer Skies" is the home page (http://www.faa.gov/apa/safer_skies/saftoc.htm) for the focused safety agenda Administrator Garvey announced last Spring. You can down-load news releases, remarks made by Administrator Garvey and DOT Secretary Rodney Slater at the announcement event, fact sheets, and other information concerning the safety agenda. It's a good look at where the FAA will be concentrating its resources well into the next century.

Also under "FAA Highlights" is a site for "Aviation Safety Info." (http://www.faa.gov/asafety.htm) This is one of several ways to get to a site that allows you to obtain safety information about aviation operators and airlines, including accident/incident data and enforcement information. Bear in mind this is raw data when you receive it and may not necessarily reflect the current operating condition of an airline. However, it is a useful research tool, particularly for *FAA Aviation News*. We go in there quite often for accident/incident statistics and examples to include in articles. You'll find it absolutely fascinating. The hyperlinks take you to press releases concerning FAA safety and security enforcement actions that involve a civil penalty of $50,000 or more. There is also a link for a summary of quarterly enforcement actions. A link called "Aviation Safety Public Information" describes the safety roles and responsibilities of the FAA and other aviation entities. This is particularly useful for understanding that FAA cannot do a thing if an airline has lost your luggage.

The link to "Aviation Safety Data" is a very powerful search engine, the results of which I described above. You can go in, enter a specific make and model of aircraft or a state or a year or an operator and obtain all associated accident/incident information. The search engine draws from FAA accident/incident databases, those at the National Transportation Safety Board, and from major aviation insurance carriers.

You can also link to the "International Aviation Safety Assessment" program where FAA shows the results of auditing other countries' safety oversight of their airlines. You would be able to see their status before you decide to travel on a foreign airline as part of an overseas trip.

Finally, there is an "Air Carrier Environmental Database," where you can find basic certificate information on an air carrier or commuter airline; for example, which FAA office is responsible for oversight of the airline, the company's location, and address, and so on.

The next site under "FAA Highlights" is one of our beloved acronyms, "FOIA," which we pronounce "foy-ya." It stands for "Freedom of Information Act," a public law that allows any citizen to request copies of non-classified information from a federal agency. On this link you will find out how to submit a FOIA request and even download the FOIA Guide or the regulation that outlines public availability of information. Also provided are the address and phone numbers of FAA's main FOIA office in FAA Headquarters and the FOIA coordinator in each of our nine regions, the Civil Aeromedical Institute, the FAA Technical Center, and the Mike Monroney Aeronautical Center. At this site also you can link to and download orders and directives involving FAA's Internet policy, from the FAA Office of Environment and Energy, from the Airways Facilities Service, and from the Office of Acquisitions. For those so interested, you can also link to sites where you can obtain information or report sighting an Unidentified Flying Object. (Curiously, one link is to the FBI—Mulder and Scully's office, perhaps?)

If you've been navigating around with me in "Aviation Safety Info," use the Back icon to return to www.faa.gov once again. The next site under "FAA Highlights" is the FAA Year 2000 Site. When you click on the link to this site you'll see that it provides you an update of the FAA's efforts in "curing" the Y2K bug. FAA has a Program Office to deal with the end of the millennium problem, and from this site you can keep track of FAA's progress in this area.

When you return to www.faa.gov and click on "Navigating this Site," you may find that you might have wanted to go here first. Under the heading "How Do I...?" the site tells you how to contact the right FAA office, how to obtain information on FAA procurement, how to find regulatory information, and how to obtain printed FAA publications. There is also a link to "Frequently Asked Questions"—FAQ. And, you can also link to the aforementioned FAA lines of business from this site. Again, this duplication or redundancy is fairly typical for a large or extensive web site; there are a number of different ways to get to the same site, depending upon how your approach it. So, it's appropriate that the "How Do I...?" page points out that there are essentially three ways to access information from the FAA site: browsing (what I've been describing here), using the search capability, and checking the hyper-links on each page.

As a long-time computer aficionado, I like browsing, sort of a cyberspace free association by clicking on a page then clicking on a link and seeing where it takes me. Of course, it's not practical when you need to get information quickly and directly, but you're more likely to come across "hidden" information of interest or link to something you may not have suspected you could find. Navigating by

using the hyperlinks on a page is quicker, but you can sail by a page that might be useful. If you are familiar with and comfortable using a search engine, using key words for the topic you're interested in will be the quickest way to get directly to what you're seeking.

At the top of the "How Do I...?" page click on "Return to Homepage" or click on the "Back" icon to return to www.faa.gov. The next site is "Headquarters Offices." This page contains a list of hyper links to organizations in FAA headquarters that might be of interest. These hyper links may also appear in other sites.

This time at the bottom of the list, click on "Return to FAA Home," or, again, click on the "Back" icon to return to www.faa.gov. The next site under "FAA Hightlights" is "FAA Supported Sites." These are sites which hyper-link to other agencies or organizations but which contain information supplied by the FAA, so they are official sites. The seven sites are:

- NASA's Aviation Safety Reporting System (ASRS)
- The Center for Advanced Aviation System Development (CAASD)
- FAA Bulletin Boards
- FAA Center for Aviation Systems Reliability at Iowa State University
- FAA Library at FEDWORLD
- FAA Statistical Handbook of Aviation
- Office of Airline Information (Bureau of Transportation Statistics

Clicking on the ASRS link takes you to the ASRS home page, which allows you to access ASRS publications (Callback and ASRS Directline), operational issues bulletins, and reporting forms. You can download the reporting forms (for pilots, controllers, mechanics, or cabin crew), print it on your printer, fill it out, and mail it to ASRS. At this site you can also access the explanation of the immunity policy regarding use of the reporting form, get an ASRS program overview or a detailed program briefing, or request database information from ASRS.

Again, the convoluted nest of hyperlinks is demonstrated here. You've gone from the FAA home page to another home page on the NASA server. At the bottom of the ASRS home page are hyper-links, some of which take you to other sites at NASA or back to the FAA server to sites we haven't talked about yet.

Because of the ability to download and print the reporting form, ASRS is probably a site to Bookmark or place in your Favorites folder.

Click the "Back" icon until you return to the "FAA Supported Sites" page so we can explore the other links. CAASD is a federally funded research and development center which is sponsored by FAA and part of the MITRE Corporation. CAASD conducts engineering and operational analysis of aviation systems, develops systems and system specifications, and helps the FAA in planning, acquiring, and implementing air traffic management systems. You can learn more about CAASD and what it does for the FAA and the public interest by clicking on its various areas, such as "Reaching CAASD," "Accomplishments," "Research Areas," and "Hot Topics."

Once again use the "Back" icon to return to "FAA Supported Sites," and let's take a look at "FAA Bulletin Boards." This page is a list of dial-up bulletin boards the FAA provides to the public. However, as more information has been added to the FAA's Internet server, dial-up bulletin boards have decreased, and, indeed, this page hasn't been verified since June of 1995. The information previously accessed from these BBS can now be accessed from www.faa.gov. This site should be removed in future.

Once more, use the "Back" icon to return to "FAA Supported Sites," where the next site is the "FAA Center for Aviation Systems Reliability at Iowa State University." This is where the FAA conducts research into non-destructive testing techniques, procedures, and prototypes in order to assure airworthiness and reliability of aircraft systems. This is a pretty extensive sites with links to all the participants in the program. Again, clicking on this link took you to a different server, this time Iowa State University's. If you look at the bottom of this home page, you'll see links that will bring you to other areas of the FAA that relate to the FAA-CASR's work.

Now, at the risk of sounding like a broken record, use the "Back" icon to once again return to "FAA Supported Sites." The next supported site is one you'll find immensely useful, and it's the "FAA Library at FEDWORLD." FEDWORLD is a government file transfer protocol search and retrieval service and contains more than 10,000 data files for various federal agencies, not just the FAA. In fact, the information in this site is so pertinent, that exploring "FEDWORLD" will be the subject of Part Two of this series, so I won't go into a lot of detail here. But this is definitely a site to bookmark or place in the Favorites folder for future reference.

Leave "FEDWORLD" for now and return to "FAA Supported Sites," where the next site to explore is the "FAA Statistical Handbook of Aviation." When you go to this site, you'll see that it's one of several sites which allows you to download Adobe Acrobat Reader for free. This software is necessary to be able to access the information in this site. Here you can access information on the FAA's budget, number of employees, number of control towers, busiest airports, number of airmen, number of pilot certificates, number of departures, number of enplaned passengers—in short, just about any vital statistic available for aviation. In most cases you can either view the information or download it and print it later. This is an excellent site for statistical and some historical research.

Okay, we're almost done with this site, so indulge me one more time—back to "FAA Supported Sites" for an overview of "Office of Airline Information." When you click on this link, you're taken to the Department of Transportation server to the Office of Airline Information home page. From this page you can determine on-time statistics for each airline, passenger and freight statistics, and financial review information. It also links you back to the FAA Statistical Hand-

book of Aviation.

Hopefully, you're beginning to see the quantity and variety of information available just by logging on to www.faa.gov. Let's go back to that page and continue.

The next bullet under "FAA Highlights" is "Other Aviation Sites." This site contains a list of 11 non-official aviation sites which FAA has links to, mainly as a convenience. For example, if you click on the "U.S. Based Airlines" link, you get a further link listing of U.S. airlines. You can get select one and be linked to its home page. Many airlines offer electronic ticketing through their home pages, which more and more people are finding useful and economic.

"Other Aviation Sites" also links you to a listing of general aviation links, education links, weather links, and links to other aviation organizations. Again, the information on these non-official sites is not guaranteed or necessarily supported by the FAA; merely, they contain information which might be of interest to an airman.

Back to www.faa.gov once more to look at the final bullet/link under "FAA Highlights"—"Site Information." This page provides information on how to contact the FAA, how to get FAA news information, and how to access an online copy of FAA phone books. This site also contains technical information about the FAA's server and Internet access. And something we're particularly proud of—the FAA home page has won three awards: It has been named a Select Site by the Dow Jones Business Directory; named as being in the top 5% of all Web sites by Point Communications; and named as a selected site by "Eye on the Web."

Furthermore, you can send a computer-related question to the FAA by clicking on the link WebmasterFAA @faa.dot.gov . Webmaster addresses are also included in the lines of business (below), and aviation questions sent to them will be forwarded to the appropriate office for review.

It's hard to believe that, at this point, we're just about finished exploring the links on only one-third of the FAA home page. One more site to explore before we move on to the FAA lines of business, is the featured site, "Turbulence Happens." (http://www.faa.gov/apa/turb/turbhome/frturb.htm) Turbulence Happens is a public education program the FAA began over a year ago to stress cabin safety to the flying public. Through this effort we have emphasized why it's important to keep your seat belt fastened at all times, even when the captain has turned off the seat belt sign. Another emphasis area is encouraging parents to buy an extra seat and travel with their infant in an approved child restraint system, rather than holding a child under two years old on a lap. Turbulence is unpredictable at best, and this site is an excellent resource for the traveling public. You can download a fact sheet on turbulence, as well as a publication on traveling with an infant on a commercial aircraft. Again, a very useful site with lots of important information.

Back to www.faa.gov once again and a shift to the right two-thirds of the home page. Here is the listing of the FAA's major lines of business and other offices of interest. Clicking on the link for a specific line of business will take you deeper into that organization, where you will find additional links—an unending supply, it seems. Before we look at these links, let's explore a helpful item called "Quick Jump." If you click on the arrow to the right of the "Quick Jump" box, you bring up a list of topics, which if you highlight and click will take you directly to an associated FAA site. These are broad categories, such as "Advisory Circulars," "Contracting Opportunities," or "Job Vacancies," but "Quick Jump" allows you to do just that—hop to a particular area without all the surfing in between. As you become more and more familiar with the contents of www.faa.gov, you'll find your bookmarks, Favorites folder, or "Quick Jump" to be the easiest ways to get around.

The first of the lines of business' listing under "Quick Jump" is the "Office of Public Affairs," which is the FAA's media relations organization. (http://www.faa.gov/apa/) If you click on this link, you're transported to the Public Affairs' home page, from which you can get FAA news releases from Washington Headquarters and three of our FAA regions—Alaska, Northwest Mountain, and Western-Pacific. Also on this page under "Information" are links to the Safer Skies site mentioned earlier, copies of Congressional testimony and speeches given by FAA officials, various FAA reports and publications, regulatory documents, biographies of FAA officials, and links to many other sites, which we have also mentioned earlier.

The rest of the lines of business back on www.faa.gov are:

- Regulation and Certification (AVR)
- Airports (ARP) - plans and develops a safe and efficient national airports system
- Air Traffic Services (ATS) - safe, efficient operation of the National Airspace System
- FAA Regional Offices and Aeronautical Center Sitemap
- Commercial Space (AST) - regulates and promotes the commercial (non-NASA) space transportation industry
- Civil Aviation Security (ACS) - protects the users of the National Airspace System from terrorist and other criminal acts
- Research and Acquisitions (ARA) - provides guidance relating to acquisition policy, research, system prototyping, and information resource management
- Office of Dispute Resolution for Acquisition (ODRA) - provides fair and efficient resolution of procurement protests and contract disputes
- Office of System Safety (ASY) - access to aviation safety related databases, safety reports and publications, and other safety information

I did not provide a synopsis for "FAA Regional Offices" and "Regulation and Certification" because I want to expand on both these sites somewhat. These two sites are where airmen who are using the FAA site will find most of the information for which he or she has

been looking.

When you click on "FAA Regional Offices" you get a U.S. map with FAA's nine regions and two centers depicted. At a glance you can tell which region your state falls under and can go directly there, or you can explore the entire map. Depending upon regional resources and the extent of Internet access in a region, you may find more information on one region's links than on another. The FAA is slowly wending its way into the cyber age, and the sites and links will be growing constantly.

For a sampling of the type of information you can find, click on the area called "Southern Region." What'll you come up with is a prodigious number of links within the Southern Region alone. This region has committed to having a home page for every Flight Standards District Office (it currently has 12 of the 13 offices on-line) and most of the air traffic control facilities as well. Typically, the information you can obtain from one of these FSDO home pages is location, phone numbers, a personnel listing, events calendar, and so on, but some offices have done more than others. The Orlando FSDO is an example. They were one of the first FAA offices to establish a bulletin board for the FAA's Aviation Safety Program and to provide safety information to aviation users and the public, and their home page is no different. The emphasis is still on the Safety Program, but there are a number of administrative links available.

For example, you can schedule your initial CFI practical test over the Internet or access an office personnel list to get to the exact person who can help you with a question or concern. This home page also offers links to FAA sites and other industry sites, and there is a special FAQ page on the revised FAR Parts 61 and 141. You can see the schedule of the FSDO's safety seminars, find an aviation safety counselor in your area, or learn about special flight advisories over the amusement parks in the area. All in all, it is a well-rounded web site, and we've only used it as an example. As you explore other regions and other FSDO's sites, you'll see, again, a wealth of information, almost to the point of overload.

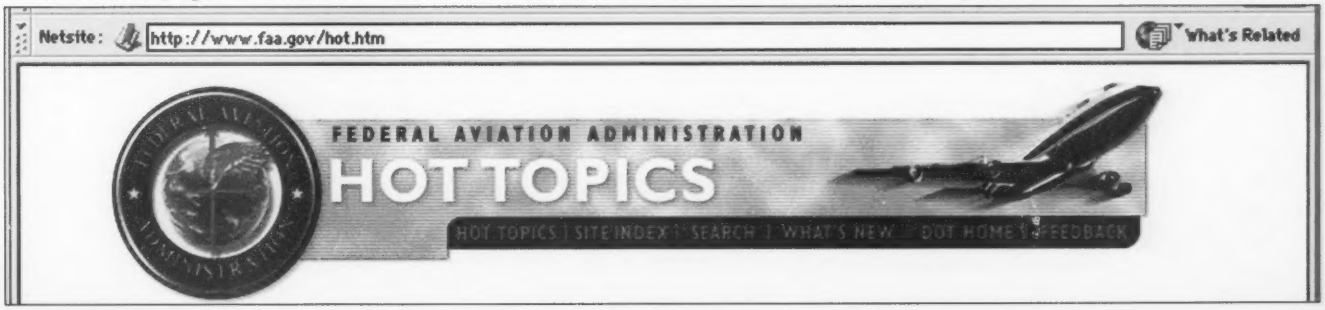
In addition to the nine regions, the centers and regions site map also provides links to the FAA William J. Hughes Technical Center in Atlantic City, NJ (our in-house research and development organization) and the FAA Aeronautical Center in Oklahoma City, OK, which houses our FAA Academy, the Civil Aeromedical Institute, and the airmen and aircraft registries, among others.

Just a quick rub of your cyber-weary eyes; we're almost done—for this issue, at least.

The final site I'd like to go in-depth on is the site for Regulation and Certification (AVR). (http://www.faa.gov/avr/avrhome.htm) If you're an airman—pilot, mechanic, etc.—this is the site which will be of most interest and use to you. AVR is the FAA organization which sets and monitors the standards that airman and aircraft must adhere to. AVR is further divided into five services or departments: Flight Standards, Aviation Medicine, Accident Investigation, Aircraft Certification, and Rulemaking. Each of these services has a link to its own home page, and the AVR page is really more of a gateway, though you can download AVR's FY99 Performance Plan and Adobe Acrobat Reader (again for free).

In addition to the five services, there are two other important links on the AVR page: "International Assessment Results" and "Suspected Unapproved Parts." "International Assessment Results" provides the outcome of special FAA inspections of foreign carriers, and we've mentioned this area before. The "Suspected Unapproved Parts" link takes you to the SUP Office home page where you can download publications and advisory information on suspected unapproved parts, the form to notify FAA about suspected unapproved parts, get an update on SUP notifications, or contact the SUP office with questions on parts.

Back on the AVR home page, the "Aviation Medicine" link brings you to the FAA's Office of Aviation Medicine home page. Here you can get the latest news on issues in the field of aeronautical medicine and link to the FAA's Civil Aeromedical Institute. You can get program information, access FAA aviation medicine orders and directives, see an index of aeromedical publications, or view the Federal Air Surgeon's Bulletin, a newsletter for aviation medical examiners. The orders and directives link provides you a list of all pertinent FAA orders concerning aviation medicine, from the FAA anti-drug program to radiation exposure of air carrier crews. Of particular interest might be Order 8500.1B, *Medical Certification Denial Procedures*. If your medical has been denied, this order not only contains the procedures which an aviation medical examiner must follow to deny a medical certification but also the procedures for the airman to follow in getting the denial removed. Rather than this being an arbitrary procedure, as some in indus-


Netsite: http://www.faa.gov/hot.htm
What's Related
FEDERAL AVIATION ADMINISTRATION
HOT TOPICS
HOT TOPICS | SITE INDEX | SEARCH | WHAT'S NEW | DOT HOME | FEEDBACK

try have stated, this order shows the steps that FAA personnel or designees must follow before a denial is issued.

This site contains a lot of interesting medical information and is well worth bookmarking or placing in the Favorites folder.

The "Accident Investigation" link on the AVR Home Page takes you to the home page of the FAA Office of Accident Investigation. This office is home to the famous "Go Team" which you have seen on television news working with the NTSB in investigating major accidents and responding to NTSB safety recommendations. The other aspect of this office is analysis of accident and incident data to spot safety trends and issues. From this page you can access the preliminary reports of accidents and incidents for the previous 10 days.

The FAA Office of Aircraft Certification's home page is accessed by clicking on "Aircraft Certification" from the AVR home page. On the AIR Home Page you can download several documents very important to the aircraft owner or operator:

- STC Listing
- Type Certificate Data Sheets
- Aircraft certification advisory circulars
- GPS/WAAS guidance
- FAA Order 8110.37A on designated engineering representatives
- Inflight Aircraft Icing Plan
- FAA Order 8400.11, Interim Procedures to Approve Special Instrument Approach Operations Using DGPS
- Technical Standards Orders, including current, canceled, and proposed TSO's and an index of TSO's

From AIR Home, you can also access the FAA's Engine and Propeller Directorate, Small Airplane Directorate, Rotorcraft Directorate, and Transport Airplane Directorate. Each of these sites has downloadable information and links to sites pertinent to the specific directorate. For example, on the Rotorcraft Directorate Home Page, you can down load Advisory Circular 27-1A, *Certification of Normal Category Rotorcraft*, and 29-2B, *Certification of Transport Category Rotorcraft*. From the Air Transport Airplane Directorate Home Page, you can down load FAA Order 8110.4, *Type Certification Handbook*, and Order 8110.42A, *Parts Manufacturer Approval Procedures*. There is also a list of designated engineering representatives for transport category airplanes, a schedule of designee standardization seminars, and the FAA order for the non-renewal of designees.

Back up to the AVR Home Page again, and click on the bullet entitled "Rulemaking." This service under AVR is actually responsible for the program management of all of FAA's rulemaking. From the Office of Rulemaking Home Page you can access FAQ's on the rulemaking process and check the status of final rules and notices of proposed rulemaking of interest to you. Using the Back icon or by clicking "Return to AVR Home" at the bottom of the Rulemaking page, let's get back to the AVR Home Page for a look at AVR's largest service.

That organization is "Flight Standards." Flight Standards sets the standards that pilots and other airmen must meet in order to be certificated and the procedures by which FAA inspectors inspect or conduct surveillance on airmen. The Flight Standards Home Page is another gateway that takes you to a wealth of regulatory, general, and safety information. (http://www.faa.gov/avr/afshome.htm)

New items or programs of interest are placed at the top of the Flight Standards Home Page; for example, the new Air Transportation Oversight System (ATOS) is highlighted prominently, since ATOS is a new way of dealing with the inspection and surveillance of air carriers.

Under "FAA Policy Documents" is the bullet "FAA Aviation Safety Inspector Handbooks and Bulletins." Click on this bullet and you, the public, can access the directives by which the FAA inspector does his or her job. There are three pertinent handbooks, which are FAA orders: 8300.10 for airworthiness inspectors, 8400.10 for air carrier inspectors, and 8700.1 for general aviation inspectors. Within each handbook, you can do a limited word search, but there is a project underway which will provide a search engine across all three handbooks, making them a virtual single handbook. This will improve the ease of use for inspectors and make your searches of this information easier as well.

These three handbooks are technical orders which prescribe the work of FAA inspectors and have no requirements on airmen or operators; in other words, airmen or operators must comply with the regulations not these employee handbooks. One handbook, however, 8400.10, *Air Carrier Inspectors Handbook*, does contain prescribed methods of compliance for air carriers. The remaining two handbooks contain a great deal of explanatory and expository material which clarifies why an inspector may ask you for a document or a record.

For example, if you want to see, step by step, how a general aviation inspector is supposed to conduct a ramp inspection, click on 8700.1, *General Aviation Operations Inspectors Handbook*, then on 8700 Volume 2, then on Chapter 56 (you'll have to scroll until you reach this in the table of contents), and, voila!, you can down load or print the entire chapter, complete with step by step procedures, job aids, and so forth.

Use your Back icon and return to the Flight Standards' Home Page, where you'll see you can also access the current Federal Aviation Regulations and notices of proposed rulemaking. There are also some links to FAA FSDO's, but the best place for that is the Centers and Regions site I mentioned earlier.

Under the "General Aviation" bullet on the Flight Standards Home Page, you can access a copy of the FAA's position on the use of autogas. There is also a link to the National Aviation Safety Program Home Page, as well as the home page for *FAA Aviation News*. We're proud to say that we were one of the first sites under Flight Standards, and we've been on-line for nearly four years.

Another important link under "Gen-

(Continued on Page 23)

Safety First: Santa's GPS Woes

by Patricia Mattison

Santa will likely be dropping off lots of GPS receivers this year, so here are a few words to the wise about the use and misuse of a helpful technology. — Editor

Last year, Martha Claus received her Private Pilot, Sleigh, Multi Reindeer Certificate. She has been flying for a year now and has really enjoyed it. Martha has made several cross fantasy land trips to her friend the Snow Queen's home and vacationed for the first time in years.

She had just returned from Siberia when Santa came in the door. "I'm so glad you're home," giving Martha a big hug. "It's been awfully lonesome here without you. I've been busy with all the arrangements for my yearly trip, and I sure could have used your help."

"So that's what I'm good for, a helper," said Martha. "And here I thought that you missed me."

"Of course I missed you! I also missed your cooking," Santa said with a smile and a kiss on Martha's cheek.

Shaking her head, Martha left to unpack and then start supper. Santa followed her into the kitchen. "I have an idea. How would you like to go along and navigate for me on Christmas Eve? It's always a good idea to have another set of eyes, and the trip would be a lot of fun. What do you say Martha, will you fly with me on Christmas Eve?"

"I'll think about it, Nicholas. I've just gotten home and I have some work to catch up on."

A week later, with Christmas Eve rapidly approaching, Martha still had not decided what to do about the trip. "Please come with me Martha," Santa pled. "There are so many new children in the world that I have a hard time keeping track of them all. You would be a real asset to me, and, besides, I miss you when I'm away from home."

"Nicholas, I'm a new Private Pilot, I don't have a lot of experience yet. I'm just beginning to gain confidence, and I don't want to spoil it by making flying like work. An around the world trip is a lot to ask."

"Please come, it won't be work, I promise, just come and keep me company," cajoled Santa.

"Oh all right, I'll come along, but I have a plan. I studied GPS not too long ago, and I have the GPS you bought me for my birthday. I'll input the coordinates for all the children in the world and then we'll be sure not to miss any. How does that sound?"

"Sounds wonderful to me," said Santa. Under his breath Santa mumbled, "What does she think, I'll miss a stop? Hundreds of years and I haven't missed anyone! Newfangled equipment, humph! Oh well, I was the one who asked her what she wanted for her birthday."

Christmas Eve was upon them before they knew it, and Santa had completed loading the sleigh. Martha had done her homework, too, and had all the coordinates in the GPS in preparation for the trip. "Nicholas, have you updated all your charts for the trip?"

"Of course I have. They are all right here in my flight bag. Are we ready to go?"

"I'm ready when you are,"said Martha.

Into the night sky they flew. Weather was beautiful as usual and the trip was as uneventful as possible, that is until some unforecast weather came into view near Glasgow. "I don't know, Martha, that fog is pretty thick. I am current to fly on instruments, but finding individual chimneys might be a bit of a problem. Can you check the coordinates for the children in town once more before I begin my descent?"

"Everything checks out. Do you have your chart for the area so you can double check your position?"

"Certainly I do." What a question to ask, thought Santa. "Why? Don't you trust the GPS?"

"Of course I do, these things are never wrong," said Martha a bit defensively.

Before dawn the last gift delivered to the last of the sleeping children, Nicholas and Martha left for home. "I'm sure glad that's over for another year," sighed a sleepy Martha.

"I know what you mean. It's fun, but tiring. It's been a long night," Santa said as they soared towards the North Pole and home.

A couple of weeks went by before the first letter arrived. "Dear Santa," it read, "My name is William and I am confused about the gift you left at my house on Christmas. I asked for a lorry, and you left me a dolly. I'm not a girl." Then another letter arrived. The same story -- a wrong gift left under the tree. Pretty soon a huge pile of letters had accumulated on Santa's desk. All of them complaining about gifts left in error. "What could have happened?" thought a mystified Santa. "I've always been so careful, then this. What was different on this trip?" Then it came to him, "The GPS, that was the only thing that was different. I relied on it entirely and didn't refer to my charts as usual. Martha, could you come in here please?"

Martha heard Nicholas calling her and also heard the sound of his voice. He didn't sound pleased. "What's the matter, Dear?" she asked.

"We've delivered gifts to the wrong houses! What a mess! I knew that I should not have relied on that newfangled GPS."

"Oh my, I'm sorry," said Martha, "I wonder what could have gone wrong."

Well, as it turned out several things had gone wrong. Martha had transposed some coordinates when she programmed the GPS, and then, to make matters worse, Santa had not double-checked his position using the sectional charts and pilotage. Then to top it all off Martha and he both forgot to check NOTAM's for possible satellite outage.

Santa sent packages to all the children who received the wrong gifts. What an expense, but a good lesson learned. "Next year we'll use the charts and pilotage for navigation and back that up with a GPS. No more misdelivered gifts for us." And with that, he went back to the list for next year.

Patricia Mattison is the Safety Program Manager at the Juneau Flight Standards District Office.

Vertical Flight Reference Chart

The IFR Gulf of Mexico Vertical Flight Reference Chart has been developed with the cooperation of the Helicopter Safety Advisory Conference (HSAC), the FAA's Houston Air Route Traffic Control Center and local FAA arrival/departure facilities. The chart depicts an IFR GPS waypoint grid system that will allow for more direct routing to and from offshore platforms, and by design, incorporate separation criteria that will reduce controller work load and increase system capacity during poor weather working conditions. Arrival and departure procedures that will transition helicopters from their coastal bases into the IFR grid and from the IFR grid to the offshore platforms have been developed with HSAC.

The chart extends from the Gulf Coast south to 26°20' north and from Texas east to approximately 87°30' west, at a scale of 1:500,000. Oil lease block information, NAVAIDS, and airport data are also shown. One half is printed on one side and half on the other. Both folded and flat versions are available.

The first edition of this chart became effective October 8, 1998 and will be printed once a year. Any changes that occur during the life of this chart will be found in the Chart Bulletin Section of the South Central Airport Facility Directory. The chart is available from National Ocean Service chart agents or directly from NOS by subscription or individual order. Telephone orders with a credit card are taken on (800) 638-8972. The stock reference when ordering is IFRGM.

The index and/or table of contents has been removed and photographed separately within this volume year.

For roll film users, this information for the current volume year is at the beginning of the microfilm. For a prior year volume, this information is at the end of the microfilm.

For microfiche users, the index and/or contents is contained on a separate fiche.

Who's on First?

By Rick Stockton

Sometimes that's what it must feel like for some pilots and instructors. Who is flying the plane while What is giving Who instruction. The only trouble is Who thinks that What is the pilot-in-command (PIC), and What thinks that Who is the PIC. What gives Who a simulated emergency landing after coming out from under the hood on an instrument approach.

Now I want you to understand that Who is a very good, low time pilot who believes in staying current and getting all the good advice he can. He attends all the meetings, reads all the books, travels to different training courses, and is well thought of by instructors.

What talks to one of Who's previous instructors, and this individual gives Who a good recommendation. What calls Who and tells him that in the morning they will be doing an instrument approach into a short field, then going on to do airwork, and, if time allows, a PAR approach into an air base.

Who gets to the airplane and does a good preflight, calls the weather folks, and files an IFR flight plan. Both Who and What take-off. What has Who hold at the inbound fix. It's a beautiful holding pattern. The approach comes next and, again, it is a thing of beauty. Who is feeling good and What is thinking that Who is a good pilot. What relaxes. What then pulls the throttle back and tells Who the engine failed. Who does the things he has been taught to do. He's 700 feet above the runway and less than a mile. Who pulls the gear up and retracts the flaps, lowers the nose to get the recommended emergency landing airspeed, which, in this airplane, is higher than the landing approach speed. Everything is the way it should be. Who feels good. What feels that Who is a good pilot.

Then Who begins to feel that things are not right, but he does not tell What. What sees Who doing the things the way he should and feels good about the flight. Who lowers the landing gear just about the right time, and What tells him to go to full flaps. Who sees that he's high and fast over the approach end of the runway. What tells him that it looks good. Who wants to go around but he's been given an emergency landing. Who thinks that What will get him out of trouble. Didn't What tell Who that if there was a real emergency What would take over? They land halfway down the runway. Who puts on the brakes, but not enough. What thinks that Who has put on the brakes, but realizes too late that not enough brakes were applied. Later, Who asks What why he didn't see the fence coming toward them and help. What can't answer him because he didn't see the fence coming either.

Two good pilots. One totaled plane. What happened? The airlines call it CRM: Crew Resource Management. Should flight instructors use this resource? How do you make the student pilot a part of the resources in a cockpit?

Think about the relationship between a pilot and an instructor. There has to be talk between the pilot receiving instructions and the person giving those instructions. I have been told that the hardest thing to do is listen. When was the last time you stopped to listen?

The airlines now realize that the other pilots in the cockpit have a need to talk to the captain when something seems unclear or abnormal. For this reason, the airlines are training pilots to communicate better with the captain in order to indicate something is wrong and what that pilot thinks should be done about it.

A first officer related a story of a flight that reached a low fuel state. The flight engineer told the captain in a low voice that they were low on fuel. The captain nodded his head and continued to fly the airplane. This situation made the first officer nervous, and in a loud voice he asked the captain, "Did you understand the engineer--we're low on fuel?" The captain looked at the first officer, then at the engineer, who was moving his head in an up and down motion. The captain repeated, "Low on fuel?" He then turned to the first officer and said, "Tell ATC that we are diverting to our alternate airport."

What might have happened if the first officer hadn't been trained to communicate with the captain in the cockpit?

There's a lesson here: Teach your students how to communicate—not just talk—with the other pilots in the cockpit!

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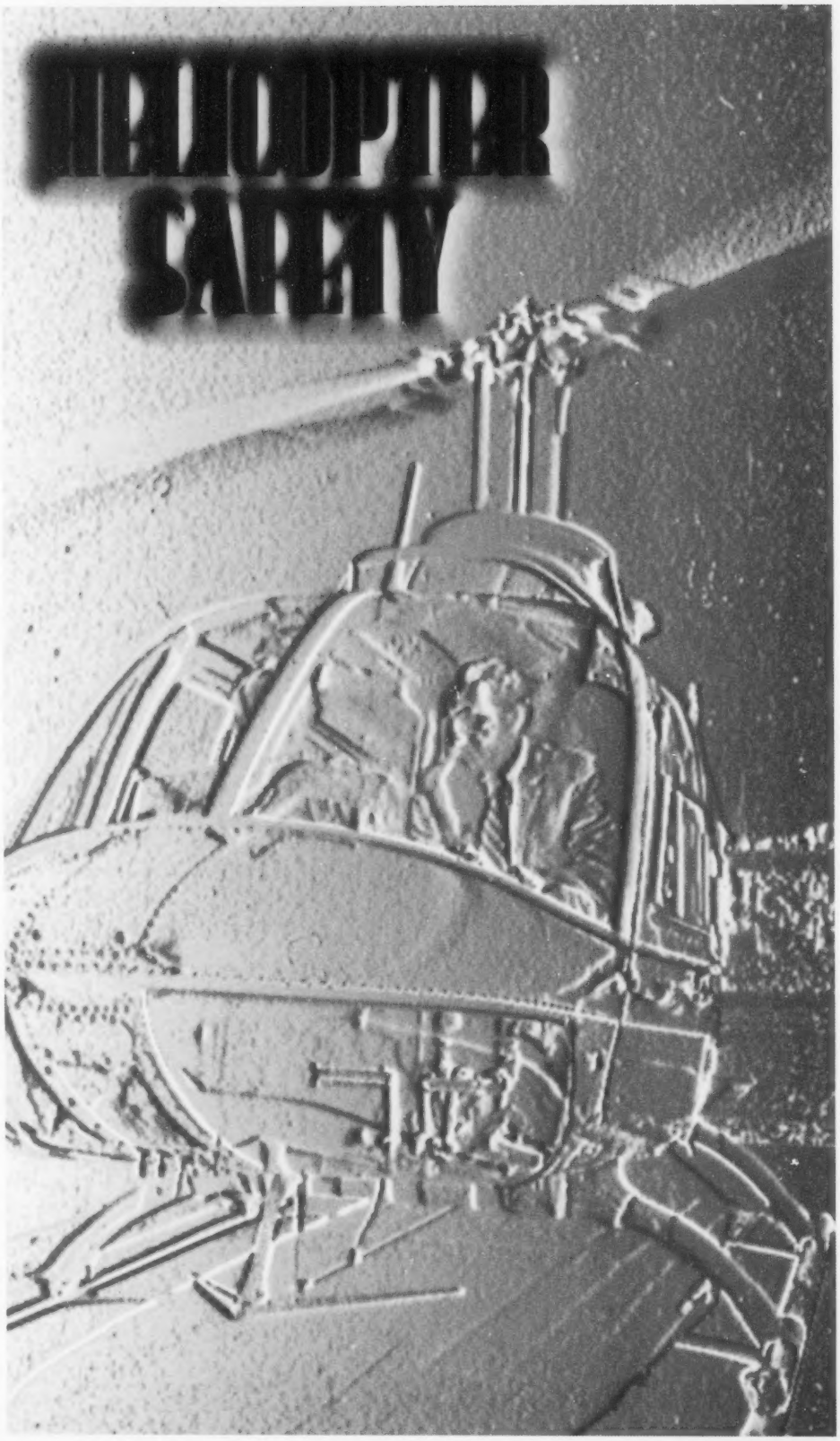
This article originally appeared in "The FSDO Flyer," published by the Winston-Salem (NC) Flight Standards District Office (FSDO). The author is an Operations Aviation Safety Inspector at the FAA's Long Beach (CA) FSDO.

HELICOPTER SAFETY



Joel S. Harris

The twin-turbine helicopter captain was engaged in a maintenance test flight (tracking main rotor blades) at night under a 400-foot overcast. Because the flight would be in the traffic pattern and very brief, the 50-year old captain apparently deemed the weather acceptable. Then the unexpected happened: The pilot and a mechanic, who was in the left seat, found themselves in inadvertent instrument meteorological conditions (IMC).

The pilot elected to fly the helicopter higher until he broke through the top of a 2,000-foot cloud layer and saw the moon above. He radioed his company operations and asked another pilot to read him the approach plate for the local instrument landing system (ILS) approach. Following this, he contacted air traffic control (ATC) and reported his situation, asking for vectors to the ILS. According to ATC radar information, his airspeed during his first two approaches varied from 26 knots to 108 knots. Both of the approaches were unsuccessful.

On the third approach, the captain radioed the pilot at his based operations that he had an attitude problem. Then, after a short delay, he stated, "I'm going to crash." The wreckage was found scattered over a large area near the middle marker, and there was evidence that the main rotor blades had hit the tail boom and radome and then separated in flight.

The U.S. National Transportation Safety Board (NTSB) found that the probable cause of the 1987 acci-

dent was inadvertent visual flight rules (VFR) flight into IMC by the pilot-in-command and possible spatial disorientation.

A 1988 NTSB study of emergency medical service (EMS) helicopter accidents found that unplanned entry into IMC was the single most common factor in fatal EMS helicopter accidents. Lonney McCann, formerly the director of training at Indianapolis Helicopter Corporation, Indianapolis, IN, and now an EMS helicopter flight instructor said, "I think under the right circumstances anyone can enter inadvertent IMC, especially at night."

The FAA manual, "Aeronautical Decision Making for Air Ambulance Helicopter Pilots," notes that even on the clearest night with VFR conditions, a pilot can come close to instrument flight rules (IFR); that is, inadvertent IMC operations if there is no moon and/or no ground lights to establish a horizon reference. Or, on the other hand, a profusion of ground lights below and stars above can merge into a continuous sweep of pinpoints that deprive a pilot of any horizon reference. However, the real killer lurking in the night sky is the unseen cloud. Clouds disappear easily in the dark, and you can fly into one without seeing it coming.

Because inadvertent-IMC accidents frequently include pilot fatalities, these accidents often cannot provide investigators with complete information on the events that led to the accidents. Information about these types of accidents can be supplemented by incident reports from the U.S. National Aeronautics and Space Administration (NASA) Aviation Safety Reporting System (ASRS).

A search conducted and published by ASRS, which sampled 100 helicopter incidents that occurred during 1987 to 1994, found several incidents that involved inadvertent IMC. In one of these events, which occurred in 1993, a non-IFR rated helicopter pilot encountered IMC conditions in a non-IFR-equipped helicopter. The pilot reported that, although he knew weather conditions along his route of flight were poor, he still took off, knowing the conditions awaiting him.

During the en route phase of the flight, the pilot and his passenger encountered rising terrain and lowering ceilings. "I was still stupidly flying at 100 knots, then poof! Into the clouds. Ground contact was lost. I knew 'down' meant death, so I, a lowly VFR-only pilot, pulled aft cyclic and climbed into the clouds. Thankfully I had about 12 hours instrument training and knew enough to go to the attitude indicator immediately, where I stayed until breaking out in what seemed an eternity later, though probably less than a minute. I've read about the article stating that my life span upon entering the clouds was 178 seconds, so I suppose that if I'm ever stupid enough to do this again, I now have only about 108 seconds to live."

Another ASRS reporter was operating an EMS helicopter in weather that had deteriorated to approximately 700 feet overcast and two miles visibility, when suddenly the visibility dropped to less than a mile, and the pilot made the mental decision to make a 180-degree turn. "I started a right turn," he said. "About halfway through the turn we went solid IMC. I elected to fly the aircraft and continue my turn, initiating a climb to a higher altitude. I contacted departure, told him of my approximate location and intentions. He had me in radar contact. Our first clearance was for the ILS 12 Left approach. I responded several minutes later that we would not be able to accept the ILS approach and was offered an airport surveillance radar (ASR) approach to Runway 23. We broke out at 1,900 feet mean sea level (MSL) and three to four miles from the runway. The controller did an excellent job on the approach. This problem was encountered due to flying in marginal weather conditions. It would not have happened if we had waited until later in the day or until the next day when conditions would have greatly improved, or if we had turned around sooner than we did."

Another reporter operating in marginal weather lost all ground reference at 400 feet above ground level (AGL) during a takeoff from an airport. He reported that he immediately climbed and contacted a military approach facility. He advised inadvertent IMC, position, and request. They assisted him immediately. "I made an approach back to my departure airport," the pilot explained. "While approaching the missed approach point, the crew and I observed the runway lights and beacon. I turned to prepare for landing but lost sight of the airport. I did, however, see a light in a yard of a home I recognized at one to two miles from the airport, and I landed in a large farm field behind the home. Although the ship was not IFR-certified, it was fully equipped, and this situation had been previously addressed and rehearsed. An instrument rating, planned for inadvertent weather, and current approach plates kept a bad situation from ending in disaster."

The first line of defense against inadvertent IMC for any pilot is to take all necessary steps to avoid the situation. Thorough weather planning is perhaps the most important step, and that includes a working knowledge of weather charts, reports, and forecasts, along with local weather trends.

Another important defense against inadvertent IMC is a willingness to land the aircraft. Such willingness runs counter to the pressures pilots sometimes feel to meet schedules, complete their missions, and show that they are equal to any situation. Another FAA publication, "Aeronautical Decision Making for Helicopter Pilots," includes "get-there-itis" among its list of classic piloting psychological pitfalls. The manual says that this "disease" clouds the vision and impairs judgement by causing a fixation on the original goal or destination, combined with a total disregard for any alternative courses of action.

If a helicopter pilot experiences a lowering ceiling and reduced visibility, and changing course does not improve the situation, he or she should consider making an offsite landing to avoid scud running or inadvertent IMC. Scud running, as defined by "Aeronautical Decision Making for Helicopter Pilots," means pushing the capabilities of the pilot and the aircraft to the limits by trying to maintain visual contact with the terrain, while trying to avoid physical

contact with it. This attitude is characterized by the old pilot's joke: "If it's too bad to go IFR, we'll go VFR."

Despite thorough planning and adherence to weather minimums, it is possible for helicopter pilots to enter inadvertent IMC. McCann described his own experience: "I was flying a single-engine turbine helicopter that was not instrument certified, although I was instrument rated and current. During a night EMS hospital transfer I called ATC for permission to transit an airport traffic area. The tower informed me that the weather on the field was variable 1,200 feet to 1,500 feet overcast and five miles visibility. I crossed the field about 900 feet AGL and had gone about another five miles when without warning the visibility went to zero. I was over a sparsely populated area with few ground lights, and the weather was totally undetectable. I knew there were towers in the area that were 500 feet to 1,000 feet tall. I considered making a 180-degree turn to try to get out of the weather, but because of the towers I decided against that course of action. So I went wings-level, brought the power into the top of the green, and began a climb. After about a minute, I broke out on top with the moon overhead. During the climb, the medical crew wanted to know if they should call the hospital and explain our situation. I considered that a distraction, and asked them to stay cool and be quiet."

The pilot continued, "Once we were on top, I called ATC and told them our situation, informing them that although I was current, the aircraft was not equipped for IFR. They vectored me to a location where I could make a VFR letdown. I had been employed recently by a helicopter airline and was very IFR proficient. I think the outcome could have been very different if the event had occurred a year later, when I was no longer as proficient in IMC flight."

Instrument currency and proficiency, not just being instrument rated, are the key. The NTSB EMS helicopter study noted that 13 of the 15 pilots involved in weather-related accidents had instrument ratings, but only one was current for instrument flight in helicopters. Instrument ratings provide no assurance that a noncurrent pilot will be capable of controlling a VFR helicopter in IFR conditions.

The pilot's actions immediately after becoming IMC will determine the outcome of the event. Trained and proficient pilots, who have a plan of action in the event of inadvertent IMC, are more likely to experience a successful outcome. Most flight schools teach a method known as the four C's: control, climb, course, and communicate.

The first priority for the pilot is to control--or fly--the aircraft. Spatial disorientation can occur at the moment of inadvertent IMC. Suddenly entering a cloud or fog creates an illusion of pitching up. Not realizing this, a pilot may abruptly begin a descent by pushing the aircraft nose-down.

FAA Advisory Circular 60-4A, "Pilot's Spatial Disorientation," reported that during a recent five-year period, there were almost 500 spatial disorientation accidents in the United States. Tragically, such accidents resulted in fatalities more than 90 percent of the time. Tests conducted with qualified instrument pilots indicate that it can take as much as 35 seconds to establish full control by instruments after the loss of visual reference with the surface. And those tests were conducted in fixed-wing aircraft, which are inherently stable in flight. To establish full control by instruments in a helicopter, which is inherently unstable, could take even longer.

The pilot should shift his full attention to the instruments and begin a scan. According to "Aeronautical Decision Making for Helicopter Pilots," continuing VFR flight into IMC is even more dangerous if the pilot is unwilling to believe what the gauges are indicating. The importance of first getting control of the aircraft by reference to instruments cannot be overemphasized.

As soon as the aircraft is under control by reference to instruments, a climb should be initiated. Often, inadvertent IMC encounters occur at low altitudes where flight into terrain is a threat if the aircraft is in even a slight descent. The pilot should initiate a controlled climb to an altitude that will provide obstruction clearance in the area of operation.

After the aircraft is in a controlled climb, the pilot can elect to turn carefully to a new course if known obstructions are ahead, or if the pilot believes weather will improve in a different direction.

After the pilot has control of the aircraft, has started a climb, and is on course, he should communicate with ATC, state his intentions, and request any assistance desired. According to the FAA's handbook, "Air Traffic Control," when a pilot notifies ATC that he is in inadvertent IMC, the controller is instructed to ask whether the pilot is qualified for and capable of conducting IFR flight. If the pilot responds affirmatively, the controller should instruct the pilot to file an IFR flight plan. Then the controller will issue an IFR clearance.

If the pilot responds that he is not qualified for or capable of conducting IFR flight, the controller should inform the pilot of the appropriate terrain/obstacle clearance minimum altitude. If the aircraft is below the clearance minimum, the controller should furnish a heading or radial on which the pilot can climb to reach appropriate terrain/obstacle clearance minimum altitude.

Controllers also are instructed to avoid unnecessary radio frequency changes, requiring a climb or descent during a turn, and abrupt maneuvers. Vectors to VFR conditions should follow.

Most importantly, a pilot must make a conscious decision to develop good judgement to complement good flying skills.

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The author holds an airline transport pilot certificate and a flight instructor certificate with ratings in both helicopters and airplanes. He is an FAA-designated pilot proficiency examiner and safety counselor. He is the Director of Pilot Standards at FlightSafety International's West Palm Beach Learning Center in Florida and has given over 10,000 hours of flight, simulator, and ground school training to professional helicopter pilots.

This article is reprinted with permission from the March/April 1996 issue of Flight Safety Foundation's Helicopter Safety.

SURFING THE AVIATION WEB

Part 1: www.faa.gov

(Continued from Page 10)

eral Aviation" is one to FEDWORLD and a listing of all general aviation airworthiness alerts, which you can click on and view through Adobe Acrobat Reader. Again, you can only do a word search, and it can get quite a bit cumbersome, but with persistence and patience, you can find the information you need.

One of the most useful sites under "General Aviation" is the "National Airshow Coordinator Home Page." If you're a sponsor thinking of scheduling a show or an airshow performer, you can access this home page and down load all the pertinent advisory circulars concerning airshows, the specific handbook chapters containing guidance for filling out the application for a waiver, and a copy of FAA Form 7711-2, Application for Certificate of Waiver or Authorization itself. It's a real full service Web site.

Back on the Flight Standards Home Page, there is one of the newer sites—the home page for the Continuous Airworthiness Maintenance Division, AFS-300 (http://www.faa.gov/avr/afs/300/afs300a.html). This division sets the standards for aviation maintenance technicians, repair stations, and mechanic schools, among others. From this home page, you can access the division's airworthiness "Message of the Month," get a description of the division's branches and national resource specialists, and click on hot links to other airworthiness information.

Under "Air Transportation" on the Flight Standards home page, you can access additional home pages on cabin safety, air carrier training, the Advanced Qualification Program, and All Weather Operations. You can also download a sample compliance statement for FAR Part 119/121 and a conversion guide for FAR Part 119/121. From here you can also link back to the Air Transportation Bulletin Board mentioned earlier or download an FAA Human Factors Report on "The Interfaces Between Flightcrews and Modern Flight Deck Systems."

The next site on the Flight Standards' home page is "Advisory Circulars" where you can link to a checklist of all FAA advisory circulars or an index of only those advisory circulars published by Flight Standards.

The last bullet on the Flight Standards Home Page is "Airman Certification" under which you can click on "Written and Practical Tests." This takes you to the FEDWORLD FAA library where you can download files of information on FAA written and practical tests. Since this is a FEDWORLD site, and that's the next article, I won't go into detail here.

I don't know about you, but I'm almost into cyber-overload. The amount of information which you can connect to from this one site alone—www.faa.gov—is almost beyond comprehension, and the way I've gone through it here is probably the most cumbersome. If you're an experienced user of the Internet and well-versed in conducting specific searches, you won't have to subject yourself to such a long and involved process. And remember, this was just an overview with detail provided on only a few sites.

So, I hope this helps out, particularly those who are new to the Internet and want to obtain up-to-date aviation safety information.

See you on line. ;-)

Part Two of this series will explore the FEDWORLD FAA Library site and Part Three, www.av-info.faa.gov .

AVR's Webmaster Tom Brown suggests bookmarking the following FAA sites (some of which we have "visited") based on his experience in directing people via e-mail to locations supplying answers to their questions:

Hotlines	www.faa.gov/apa/faafaq.htm
FAR's	www.faa.gov/avr/AFS/FARS/far_idx.htm
General Questions	www.faa.gov/international/answerbk.htm
Pilot ID's	www.awp.faa.gov
International	www.faa.gov/avr/iasa.htm
New Rules	www.faa.gov/avr/armhome.htm
Forms	av-info.faa.gov
Phone Numbers	www.faa.gov/apa/phonhome.htm
Safety	www-afo-arc.nasa.gov/ASRS/ASRS.html
FSDO's	www.faa.gov/fsdo/orl/index.htm

SPEED RESTRICTION ISSUED ON EARLY MODEL BONANZAS

On July 7, the FAA adopted an Airworthiness Directive (AD 98-13-02) that applies to Models 35, A35, B35, and 35R *Bonanzas* built between 1947 and 1950. This AD requires fabricating a placard that restricts the never exceed speed (Vne) to no more than 144 mph or 125 knots and installing this placard on the instrument panel within the pilot's clear view. This AD also requires marking a red line on the airspeed indicator glass at 144 mph (125 KTS), marking a white slippage mark on the outside surface of the airspeed indicator between the glass and case, and inserting a copy of this AD into the Limitations Section of the airplane flight manual (AFM). Unless this these actions have already been accomplished, compliance of this AD is required within the next 10 hours time-in-service after the July 7 effective date.

Models 35, A35, B35, and 35R are equipped with "V-tails" that have a narrow chord stabilizer without reinforcing cuffs, and the FAA's preliminary investigation reveals the possibility of an unstable flutter mode when these *Bonanzas* reach the 160 to 170 mph range. This unstable mode is not likely to occur on other Beech models with "V-tail" configurations. The actions prescribed in this AD are intended to prevent in-flight vibrations caused by the affected airplanes operating at excessive speeds, which could result in airplane damage and possible loss of control of the airplane.

This AD applies to all 35, A35, B35, and 35R models regardless of whether the airplane has been modified, altered, or repaired in the area subject to this AD. If this is the case and the performance of the AD's requirements is affected, the owner/operator must request approval for an alternative method of compliance in accordance with the AD. The request should include an assessment of the effect of the modification, alternation, or repair on the unsafe condition addressed by this AD, and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

This AD is available on the Internet at http://www.fedworld.gov/pub/faa-cai/ad13-354.sml . For further information contact Mr. Steve Litke, Aerospace Engineer, at the FAA's Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, KS 67209, (316) 946-4127 or FAX (316) 946-4407.

FROZEN BRAKES

Operating to/from contaminated runways in the winter demands special considerations.

A *King Air* 100 had landed in blowing snow conditions with an ambient air temperature of -25°C. The pilot needed to use differential braking to keep the aircraft on the runway during the rollout and on the centerline while taxiing. With due care, the arrival was uneventful, and the aircraft remained parked on the ramp until the scheduled departure the next morning.

It was cold, but preflight and startup procedures were normal. Brakes were released, but the aircraft didn't move. The pilot pumped the brakes to ensure that the parking brake had released and added a touch of power—nothing. A touch more power and the aircraft started to slide, wheels locked—or was that frozen?

The extra braking during the previous day's landing and taxi had heated the brakes. As the blowing snow collected on or near the brakes, it melted and then quickly refroze. The resulting strong, black ice could not be seen during preflight. The only solution was to reheat the brakes, followed by a short hangar stay to ensure that they were dry before once again venturing out into the cold winter morning.

The Cessna 550 *Citation* departed a slush-covered east coast runway for a flight north. After less than two hours in the air, the crew flew a stabilized approach to a smooth touchdown. Tires blew during the landing roll as the wheels refused to rotate. The aircraft was disabled, blocking the runway for a time while alternative arrangements were made for the "taxi" to the ramp.

A Swearingen *Metro* slid off the left side of the runway about 3,000 feet from the threshold. This crew had also flown a stable approach and touched down on centerline and on speed, but the left brake was frozen at touchdown, pulling the aircraft into the weeds. The crew had departed a runway that was 60-70% bare and dry with scattered drifts and blowing snow conditions—temperature was -13°C. The taxi and takeoff had generated enough heat that the snow melted on contact with the brake assemblies and froze in flight.

The recommendation is to leave the gear extended for a few minutes after takeoff to ensure that the snow and slush blows off. Even better, let it hang for a brief period, and then cycle it once up, down, and back up before continuing en route. On arrival, use minimal braking, and hangar the aircraft if possible. If you can't hangar it, use a "mule" to move it before start to ensure that the brakes are free-if not, a little preheating will help, just as it smoothes engine starts.

From Transport Canada's Aviation Safety Letter.

• Runway Incursions

In reading the piece in a recent issue on runway incursions, I was reminded of a particular problem that might result in an aircraft being in the wrong place on an airport. A problem that often faces pilots of general aviation aircraft at night on large airports. I recall a visit to Atlantic City a few years ago on an instrument training flight on a dark night. After landing, we were instructed to taxi to the take-off runway via a sequence of taxiways, all of which were marked by the usual lights. The problem was that at the low angle that the pilot of a C172 views the airport, all that could be seen was a sea of lights with no discernible pattern, and the resulting confusion as to which way to turn first was considerable.

In responding to our request for help, the unsympathetic tone of voice used by the ground controller made it obvious that his lofty perch offered a clear view of the taxiway patterns, and it was also clear that he had no concept of the difficulties that we were facing.

I suspect that the view from the cockpit of a larger GA or commercial aircraft is markedly better. For us low, down, close to the ground types it is even more imperative that we do our best to acquire a chart of the airport to familiarize ourselves with the layout in advance, and not be afraid to ask for help. Controllers who have not had the experience of night operations in a light aircraft might want to take an opportunity to see the problem for themselves.

David MacRae
Princeton, NJ

You made some very good points, but have you also thought of asking for a "progressive taxi" from the controllers? Or, have you ever invited your local air traffic controllers for a ride in your aircraft to show them how the world looks like from a "low, down, close to the ground" GA viewpoint? The flight might help both of you understand each other's problems and operating restrictions. To learn more about what controllers can do, telephone your local facility and ask about an "Operation Raincheck" tour of the facility.

ATTENTION ALL READERS! NOT ENOUGH MAINTENANCE ARTICLES!

You need to have more articles on maintenance issues. You especially need more articles about the new Airworthiness Safety Program. We have a very good program here in NC. The contest they have here is great. There should have been a program like this one a long ago for mechanics. It seems like the FAA is finally catching on that it is the mechanics that make the aircraft fly, not the pilots.

Your publication is great. I would like to see more articles like the one on Jack Roush. (I am a big race fan.)

Keep up the good work.

Moody
Via Internet

Thanks for your e-mail about wanting more maintenance articles in FAA Aviation News. *You are right. We need more good maintenance articles. Our problem is finding them. People just don't seem to want to write them. Sooooo, if you are in aviation maintenance, why don't you write a maintenance article for publication on a topic we agree on. Give us a call or send us another e-mail for details on how to write the article. We will work with you. We will even discuss the best type of photographs to take and the type of film to use for the article. If you send us an e-mail message, please include your name and telephone number, and we will give you a call.*

• ATP Privileges

I have a question regarding the new regs on the logging of PIC time. FAR § 61.51(e)(1) states, in part, "A recreational, private, or commercial pilot may log pilot-in-command time only for that flight time during which that person is the sole manipulator of the controls of an aircraft for which the pilot is rated." No mention is given to the pilot with an ATP certificate in this paragraph. Now, FAR § 61.51(e)(2) states, "An airline transport pilot may log as pilot-in-command time all of the flight time while acting as pilot-in-command of an operation requiring an airline transport pilot certificate." The underlined portion is the change made in the new FAR Part 61 update. The only assumption I can make is that the pilot with an ATP certificate is considered a commercial pilot when not involved with operations requiring the

FAA AVIATION NEWS welcomes comments. We may edit letters for style and/or length. If we have more than one letter on the same topic, we will select one representative letter to publish. Because of our publishing schedules, responses may not appear for several issues. We do not print anonymous letters, but we do withhold names or send personal replies upon request. Readers are reminded that questions dealing with immediate FAA operational issues should be referred to their local Flight Standards District Office or Air Traffic facility. Send letters to FORUM Editor, FAA AVIATION NEWS, AFS-805, 800 Independence Ave., SW, Washington, DC 20591, or FAX them to (202) 267-9463; e-mail address: Dean.Chamberlain@faa.dot.gov

ATP certificate. Is this correct? If this assumption is not true then a pilot with an ATP certificate could not log PIC flight time while flying their own aircraft for personal transportation.

Bill de Groh, CFI
Ridgecrest, CA

You are correct. FAR § 61.167 Privileges, applies. Subparagraph (a) of that section states, "A person who holds an airline transport pilot certificate is entitled to the same privileges as those afforded a person who holds a commercial pilot certificate with an instrument rating."

• The Procedure for Procedure Turns

The following item, Procedure Turn Options, is forwarded for discussion in the *FAA Aviation News*.

This subject needs to be expeditiously resolved as the current situation adversely affects flight safety, operational cost-effectiveness, and the degree of professionalism necessary to the aviation industry.

Resolution will also serve to enhance the quality of flight training and objective evaluation, whether FAR 61, 91, 121, 135, or 141 operations are involved.

There appears to be a continuing problem regarding interpretation and application of procedure turn symbology used on NOS and Jeppesen instrument approach charts.

Both legends associated with these charts--the AIM and the FAA Instrument Flying Handbook (AC 61-27C) and several other highly respected texts describe the intent of the barb as used on NOS charts and Jeppesen's 45/180 degree schematic portrayal. These depictions are meant to provide for options regarding the type and rate of turn as well as the point where the turn may commence. The pilot is allowed to use his discretion provided the procedure flown results in the aircraft remaining within the distance and maneuvering area shown by the plan and profile views.

Some pilots--instructors and examiners included--feel that only the pattern based on the Jeppesen schematic portrayal is allowed. They do not accept teardrop, racetrack, 90-270 degree patterns, or other options, especially when examining instrument rating applicants.

My questions are:

1. Does the FAA have any official policy which restricts pilot options for procedure turns?
2. Is any pilot, regardless of certification and/or experience, allowed to select a procedure turn option so long as it meets the criteria described in AC 61-27C?

F. Kent Carter
Greensboro, NC

1. No, but the pilot must remain within the distance specified and perform the procedure turn on the side indicated.

2. Yes, unless the procedure specifically states a particular type of procedure turn must be used such as a race track pattern. Having said that, on a check ride the examiner may request a particular type of entry to prove the applicant knows how to do it as outlined in the appropriate Practical Test Standard.

• GUMP REDEFINED

We continue to see gear up landing accidents. In an effort to reduce these accidents, I have redefined GUMP as follows:

G - Gear Down
U - Undercarriage Down
M - Main Wheels Down
P - Put The Wheels Down

Remember that gas, mixture, and prop will not help you taxi in if you don't put the wheels down and check that they did go down and lock in place.

Aviation Safety is a State of Mind, Think About It.

Al Neal
FAA Safety Program Manager
Rapid City, SD,
Flight Standards District Office

• GUMP REDEFINED II

How about G-R-U-M-P-H?

G - Gas
R - RADIO Are you sure the radio is on and tuned to the correct frequency?
U - Undercarriage
M - Mixture
P - Prop
H - Carburetor Heat

It is a good habit even in a fixed-gear and fixed-prop airplane.

Stuart Faber
Cincinnati, OH

CAP Historical Foundation L-16

The CAP Historical Foundation (CAPHF) has designated its ex-CAP 1948 Aeronca L-16B (right) as a tribute on the occasion of the CAP's 50th Anniversary as the official auxiliary of the U.S. Air Force.

The Civil Air Patrol was designated as the auxiliary of the new U.S. Air Force in May 1948, more than six years after CAP was organized in the-days before Pearl Harbor. Originally a Civil Defense function, CAP was made an auxiliary of the U.S. Army Air Forces in 1943.

Symbolic of post-war Civil Air Patrol, the Aeronca L-16 was CAP's workhorse of the 1950's and 1960's. Literally thousands of pilots today look back fondly on local squadron flying in L-16's. Thousands more got their first flights in L-16's as cadets.

The military version of the popular Aeronca Champ, the L-16 was ordered by the U.S. Army in 1947 but most went to the Air Force after its creation in October of that year. Some 509 L-16A's were built with Continental 85-hp fuel-injected engines, a 20-hp increase from the civilian 7AC Champ. In a follow-on contract in 1948, 100 improved L-16B's were produced with 90-hp Continentals (95 hp for takeoff) and a larger dorsal fin.

The type served as artillery spotter, liaison and training aircraft until early in the Korean War, when it was withdrawn in favor of the new and more powerful Cessna L-19 Bird Dog. Stateside service included National Guard aviation units and base hack duties.

Beginning about 1952, some 332 L-16's were turned over to Civil Air Patrol as its W.W.II--surplus L-2's, L-4's and L-5's began to wear out. Flown on Air Force inventory until 1956, the L-16's were then transferred to CAP ownership and registered as N-numbered civilian aircraft. L-16's served with CAP until 1970.

The CAP Foundation aircraft is L-16B 48-484, built in February 1948 as the 62nd "B" model off the line. As N4019B, it served with Louisiana Wing, CAP, and was modified there in the 1960s into Aeronca 7EC configuration with two 13-gallon wing tanks, electrical system, and radios for long-range patrol of the Mississippi Delta.

N4019B was recently purchased and restored by Drew Steketee, a senior vice president at the Aircraft Owners and Pilots Association (AOPA) and founder of the CAP Historical Foundation. It was last restored in the l980's by Rick Aldrich of Burt Rutan's Scaled Composites in Mojave, California.

CAPHF's Aircraft Display Program encourages owners of ex-CAP aircraft to restore them in authentic CAP colors and insignia. The Foundation's first participating aircraft, a Stinson 10A which flew liaison duties in W.W.II, was acquired in 1996 by Jack Faas of Lake Geneva, Wisconsin, and is on display in the Midwest. Other restorations will be asked to join the program this year.

Painted last in early W.W.II desert camouflage, the L-16 has now been returned to its original Nevada Silver with Air Force tail number and CAP markings--the familiar Civil Defense-based insignia used until the 1970s. An extra touch is 1960's-era International Orange wingtip paint, used (but later discarded) by the military as an anti-collision measure.

Pilots still enjoy the slow 70-knot speed, spectacular visibility and great control harmony that made the L-16 a great CAP search plane even after the L-19 and helicopters made it obsolete in combat roles.

"The L-16 is symbolic of great CAP flying in the '50's and '60's," said the Historical Foundation's Steketee. "For me and for many others throughout the post-war era, CAP was a great place to either start flying or keep flying."

NEW FAA POLICY BENEFITS GENERAL AVIATION, INCREASES SAFETY

FAA has announced a new policy to improve safety and increase efficiency for the general aviation community. The policy paves the way for the implementation of Flight Information Services (FIS), which will provide digital information directly to the cockpit. FIS is the result of a consensus between the FAA and the general aviation community.

Through high-tech cockpit displays, FIS will provide pilots with weather graphics and text, special use airspace information, notices to airmen, and other information that is now obtained by radio or telephonic communications with air traffic or flight service.

Access to up-to-date weather information will aid in pilot decision-making and possibly reduce weather related accidents in general aviation, one of the leading causal factors in that aspect of aviation. More than 200 fatalities per year in general aviation are the result of hazardous weather conditions.

Under the new policy, government, industry, and end user will have certain responsibilities.

The FAA will:

- Make NAS status and existing federal meteorological data equally accessible to all aeronautical users
- Work with industry to develop a joint petition to the Federal Communications Commission (FCC) to assign four 25 kHz radio frequency channels in the 136.0 to 136.9 MHz VHF spectrum and select qualified vendors on a competitive basis to be the providers of FIS
- Work with other government agencies, users, and industries to develop a common set of human factors guidelines and standards for the display and training associated with use of FIS products in the cockpit
- Lead and coordinate the establishment of national and international standards and operational procedures for delivery of FIS via data link, ensuring inter-operability between various FIS capabilities and service providers

Industry will:

- Provide ground infrastructure (ground servers and data link transmitters) needed to get product to the aircraft as well as avionics needed to process and display products in the cockpit
- Provide basic FIS products and services to all properly equipped users at no direct cost to government and users
- Provide value-added products for fees, based on user demand

Users will:

- Acquire avionics at their own cost
- Receive basic products at no cost
- Pay for value-added products

The user community, industry, and FAA will be working together to define the basic FIS products and services that will be provided at no cost to users or the government. The FAA plans to implement this policy by the end of 1998.

FAA SIGNS ELT AGREEMENT WITH THE COAST GUARD

Before departing his position for private industry, FAA Associate Administrator for Regulation and Certification Guy S. Gardner sent a letter on July 31st to Rear Admiral James D. Hull agreeing to the establishment of January 1, 2008, as the proposed Department of Transportation's termination date for the space-based satellite monitoring of the aviation emergency frequency 121.5 MHz. That frequency is used both in aviation emergency locator transmitters (ELT) and its maritime equivalent locating beacons.

The agreement establishes a proposed DOT policy for the termination of the space-based monitoring of the older 121.5 MHz ELT signals. The space-based monitoring of the current and newer 406 MHz emergency alerting frequency would continue. The discontinuation of the space-based monitoring of 121.5 MHz by the international COSPAS-SARSAT satellite-based system would require approval by the various international organizations and countries that make up the multinational search and rescue system.

NEW COAST GUARD PHONE NUMBER

The Coast Guard has notified *FAA Aviation News* that readers wanting to contact the Coast Guard for information about its Air Auxiliary Program should use the following telephone number instead of the telephone number listed at the end of the Team Coast Guard Aviation article under "HOW TO JOIN" the Air Auxiliary in the May-June 1998 issue.

The preferred telephone number is 1-800-424-8883. This number calls Coast Guard recruiting which has information about both the active-duty Coast Guard and its Auxiliary Program.

Readers interested in only the USCG Auxiliary Program should make sure they state they are interested in the Auxiliary Program, otherwise they just might find themselves recruited into the Coast Guard.

All joking aside, the number listed in the article, 1-800-368-5647, is for requesting information from the Coast Guard's automated Information and Customer Service telephone system. The automated service does not have Auxiliary Program information.

The Coast Guard regrets any inconvenience anyone may have had in trying to get information on its Auxiliary Program.

Editor's Runway

from the pen of Phyllis-Anne Duncan

FAA News

Since we're all tired of the one story that seems to be dominating the national news, here are a few FAA news items of interest that probably got lost in the shuffle:

- As of October 1, the former Director of the FAA's Aircraft Certification Service, Thomas E. McSweeny, was named as FAA's Associate Administrator for Regulation and Certification. Former Associate Administrator Guy S. Gardner left the FAA to pursue a dream of his. What is the dream of a man who has been in space? To work with the youth of this country as an inspirational speaker, to show them that they, too, can reach the stars if they try. We wish him well in his new endeavor. Mr. Gardner is a truly kind and giving person, and our loss is the gain of this country's youth. Mr. McSweeny now becomes responsible for all aspects of the FAA organization we call AVR—Accident Investigation, Flight Standards, Aircraft Certification, Aeromedical Standards, and Rulemaking.
- The security screeners and their supervisors whom you see at every airport now must undergo background investigations and a criminal history check before being employed. Screeners currently employed will also undergo these checks. As a result of the FAA Reauthorization Act of 1996, any airline or airport employee with access to secure areas of the airport had to undergo background checks and criminal record checks, and the FAA has now extended this requirement to security screeners to further enhance public safety.
- The FAA has gone to the dogs—but not the way some of you may think. The FAA has initiated a new program to help assess a bomb threat quickly. The new program is the K-9 Explosives Detection Team, and the canine-human partners will be placed around the nation so that when a particular airline or aircraft receives a bomb threat, the Explosives Detection Team will be in place to evaluate the situation quickly. This will allow a swift and safe resolution to the threat and also means minimal delay for the passengers and airline. The K-9 officers have undergone extensive training to sniff out explosives in association with terminal areas, luggage, cargo, vehicles, and aircraft, and they also get periodic recurrent training to help them deal with all the distractions a crowded airline terminal offers. The FAA uses sporting breeds for its canine officers—principally Labrador, Chesapeake Bay, and Golden Retrievers—because of their gentle temperaments and good noses. And once their service tenure is over—10 to 12 years—their human partners get to take home a loving and gentle pet. See, we do have a soft spot.
- FAA also recently doubled the number of cabin safety inspectors employed to assure that airlines are following all cabin safety regulations. There is now at least one cabin safety inspector for each major airline, a total of 30 inspectors. Cabin safety issues such as carry-on baggage, crew interference, and use of seat belts to prevent turbulence injuries have achieved a level of importance that requires a broader scope of compliance not only with FAR's but with airline requirements as well. Cabin safety inspectors will be authorized to assure airline compliance and to assist airlines with how they handle cabin safety issues. Cabin safety inspectors will also review the airlines' cabin safety procedures and assess their effectiveness.
- As someone who travels frequently for the FAA, I have always been concerned about personal safety in an unfamiliar city, and that is a concern shared by many frequent travelers. No one wants to restrict themselves to the hotel, and these days, even the hotel may not be the safest place. This past September the FAA changed its prohibition on self-defense sprays and now allows them to be carried in checked baggage only, NOT in carry-ons. A passenger may carry one self-defense spray (pepper spray or mace) weighing four ounces or less and which has no more than two ounces of tear gas in his or her checked baggage. Fines for bringing a self-defense spray into the cabin in carry-on baggage or for not adhering to the spray's size and content limitations for checked baggage are up to $25,000. There is also a possibility of five years in prison, so pack carefully and conscientiously. One recommendation: If you opt to bring along a personal defense spray, please get some training in its use, and remember, its contents have a limited shelf life. You don't want it to fizzle when you need it the most.
- Early in September the 100th U.S.-licensed commercial space launch soared away from Vandenberg Air Force Base in California, a milestone for one of America's fastest growing industries. It took six years (1989 to 1995) to reach 50 launches, and only three years for the second 50. The FAA's office of Commercial Space oversees all U.S., non-NASA launches. As of September the U.S. had conducted 16 commercial launches compared to four each for the European Space Agency and Russia and three for the People's Republic of China. The U.S. launches account for revenues of $757.5 million and could top $1 billion by the year's end. The 100th flight went aloft on a Delta II rocket, which carried into low earth orbit five satellites for the Iridium global wireless telephone system. It's the best we can do until we get Scotty's transporter up and running.

Yet another year is over. Yet another holiday season is upon us. When you're young and carefree, time seems to pass so slowly. Now, it seems to warp past with dizzying speed. Whatever your spiritual persuasion, now is the time for some reflection and a look toward the next year. Give yourself the gift of an added rating or certificate—something to look forward to after the winds of winter have subsided and a good way to hone your proficiency in the spring if you haven't faced the icy chill of winter flying.

The Aviation News Staff would like to wish everyone a safe and delightful holiday season and a prosperous new year.

'Til next year…

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Superintendent of Documents

Washington, D.C. 20402

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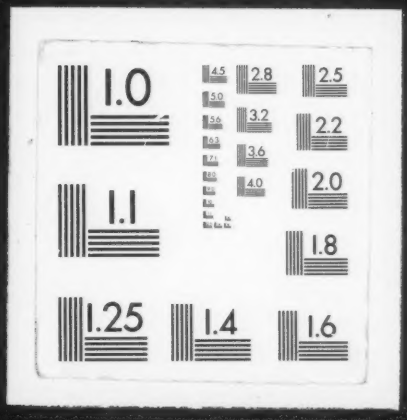
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